

REMARKS/ARGUMENTS

Claim 7 has been canceled. Claims 1-6 and new Claims 8-14 are active in the case. Claims 4 and 5 stand withdrawn from consideration. Reconsideration is respectfully requested.

The present invention relates to a process of removing methacrylic acid from a liquid phase comprising acrylic acid as a main component and methacrylic acid as a secondary component.

Specification Amendments

The specification has been amended in order to introduce therein appropriate section headings. Entry of the amendments is respectfully requested.

Claim Amendments

Applicants have amended the claims so that they are directed to a method-o-use. Accordingly the invention is direct to a method of cosmetically treating the hair, skin or nails by applying to the hair, skin or nails an aqueous polymer dispersion of a cross-linked cationic polymer. Other minor changes of form have been made in several of the claims.

New claims have been added and theses are Claims 8-14. New Claims 8 and 9 are supported by page 11, lines 16-20 and Claim 10 is supported by page 11, lines 1-10. Page 12, lines 12-15 provides support for Claim 11 and page 15, lines 8-10 provides support for Claim 12. Claim 13 is supported by page 18, lines 36-38. Original Claim 7 supports new Claim 14.

None of the amendments and new claims are believed to have introduced new matter into the case. Entry of the amendments and new claims into the record is respectfully requested.

Claim Rejection, 35 USC 112, Second Paragraph

Claim 1 has been amended so that it clearly recites what applicants mean for the phrase “saturation amount” that defines component (f). The term is simply that 100 % by weight saturation is indicative of that amount of salt which just dissolves in the aqueous medium of the monomer ingredients at the reaction temperature without precipitation. The text at page 16, lines 5-8 provides this definition of the term saturation, which indeed is the well known meaning of the term. The issue of indefiniteness is therefore believed to be overcome.

The term “protective” has been removed from the description of the colloid of component (g).

Finally, both salt component (f) and colloid component (g) are essential components of the polymer dispersion that is prepared and therefore must be considered as factors which define the aqueous dispersion which exhibits utility as a cosmetic. Withdrawal of the non-reference ground of rejection is respectfully requested.

Claim Rejection, 35 USC 101

As applicants have noted above, the present invention is now claimed in terms of a method-of-use in the form of a method which cosmetically treats the hair, skin or nails. The amended claims properly provide the steps of the method by which the indicated parts of the body are treated with the copolymer dispersion of the invention. Accordingly, withdrawal of the rejection is respectfully requested.

- App'n. No. 10/525,232
- Reply to the Office Action of February 5, 2007

Double Patenting

Claims 1-3, 6 and 7 stand rejected provisionally on the basis double patenting in view of Claim 1 of copending application Serial No. 09/604,001. This ground of rejection is respectfully traversed.

Although the rejection is a provisional rejection, nevertheless, applicants submit that the present invention, as it is directed to a method of cosmetically treating the hair, skin and nails, is patentable over the skin cosmetic or dermatological preparation of the copending application. It must be understood that components (f) and (g) of the present dispersion are important components thereof in the utility of the dispersion for the cosmetic treatment of various surface features of the body. Note, for instance, as described on page 15, lines 14-18 of the specification that the presence of salt in the dispersion so that the polymer component rises in a separate phase and thus reduces the overall viscosity of the aqueous dispersion. Accordingly, components (f) and (g) are important factors in distinguishing the substantive copolymer containing dispersion of the present invention over the claimed embodiments of the cited application. Withdrawal of the rejection of the claims is respectfully requested.

Claims 1-3, 6 and 7 stand rejected provisionally on the basis double patenting in view of Claims 1-3, 7, 9, 12-15, 20 and 21 of copending application Serial No. 10/524,370. This ground of rejection is respectfully traversed.

Although the rejection is a provisional rejection, nevertheless, applicants maintain that the separate cosmetic formulations that are claimed and the process of preparing the polymer by the free-radically initiated copolymerization of a monomer mixture in an aqueous medium do not suggest the claimed method of cosmetically treating the hair, skin or nails of a subject of the present invention which requires a dispersion that contains components (f) and (g). As pointed out above, components (f) and (g) of the present dispersion are important components of the dispersion. Thus, as described on page 15, lines 14-18 of the specification, the presence

of salt in the dispersion so that the polymer component rises in a separate phase, and thus reduces the overall viscosity of the aqueous dispersion, is an important feature of the dispersion as it is used in the claimed method. Accordingly, components (f) and (g) are important factors in distinguishing the substantive copolymer containing dispersion of the present invention over the claimed embodiments of the cited application. Withdrawal of the rejection of the claims is respectfully requested.

Claim Rejection, 35 USC 102

Claims 1-3, 6 and 7 stand rejected based on 35 USC 102(a) as anticipated by Schade et al, U. S. Patent 5,962,613. This ground of rejection is respectfully traversed.

The important line of distinction between the present invention and the disclosure of Schade et al is that the copolymer component of the present invention is prepared by an emulsion, free-radically initiated polymerization process to form a dispersion, while the process of polymerization of the patent is a solution polymerization that occurs in water and/or a polar organic solvent (col 2). The process distinction gives rise to polymers of materially different properties, as shown by the data in the examples of the present application. Examples 1-3 on pages 35 and 36 of the specification describe the preparation of polymer dispersions of the invention in aqueous media, each medium containing a salt and a colloidal material. The result in each case is a dispersion (emulsion) having a high content of solids (23 % by weight) (see Table 1 on page 37). Examples 4 and 5, on the other hand, describe free-radically initiated polymerization reactions that occurred in solution in water and thus are within the scope of the Schade et al patent. Example 5, in particular, describes a polymer solution that has a solids content also of 23 % by weight. Example 4, on the other hand, shows a low solids content of 6.5 % by weight and has a flow structure which is attributable to gel particles, whereas a corresponding dispersion of the present invention does

Appin. No. 10/525,232
Reply to the Office Action of February 5, 2007

not exhibit such a structure. This is highly advantageous because for a cosmetic formulation, any building-up of structure in the composition is a very undesirable effect and should be avoided. Thus, the anticipatory ground of rejection is believed overcome.

The data in Table 2 on page 41 of the specification should also be considered. Here, Preparation Examples 1-3 (shampoos 6-8) are within the scope of the invention are within the scope of the present invention, while Preparation examples (shampoos 9 and 10) are within the scope of the Schade et al patent. As a result of the use of the shampoos of the invention versus the shampoos of the of the two solution polymers, the very much superior reduction in combing force required for shampoos 6-8 of the present invention (both wet and dry conditions) versus the combing force required as a result of use of Shampoos 9 and 1 derived from solution polymers demonstrates the superior conditioning effect of hair when using the embodiments of the present invention. Accordingly, the present invention as claimed is believed to be patentably distinct over Schade et al, and withdrawal of the rejection is respectfully requested.

It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)



Frederick D. Vastine, Ph.D.
Registration No. 27,013

NFO:FDV